

AMENDMENTS TO THE CLAIMS

1        1-20. Canceled

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1            21. (Original) A computer-implemented method for performing a transaction  
2 comprising the steps of:  
3            producing a transaction instance data structure indicating a plurality of operations  
4 constituting a transaction; the transaction instance data structure indicating a linking of the  
5 plurality of operations to indicate an operation performance order; the transaction instance  
6 data structure further indicating conditioning logic data for changing the operation  
7 performance order such that the plurality of operations is capable of being performed in  
8 more than one possible order; and  
9            for each of the plurality of operations,  
10          producing an operation request message indicating input data for performing an  
11 operation;  
12          sending the operation request message to a service application to perform the  
13 operation using the input data;  
14          receiving an operation response message from the service application indicating  
15 output data from the operation; and  
16          determining a next operation to perform using the conditioning logic data and the  
17 output data of the operation response message.

1            22. (Original) The computer-implemented method of claim 21 for performing a  
2 transaction wherein the conditioning logic data indicates at least one of a mathematical  
3 expression, a function, and a variable data item; and wherein the step of determining the  
4 next operation to perform using the conditioning logic data and the output data of the

5 operation response message includes using the output data to evaluate the at least one of the  
6 mathematical expression, the function, and the variable data item.

1        23. (Original) The computer-implemented method of claim 21 for performing a  
2 transaction wherein the operation request message and the operation response message  
3 include extensible markup language (XML) tags indicating data items.

1        24. (Original) The computer-implemented method of claim 21 for performing a  
2 transaction wherein the transaction instance data structure is a directed acyclic graph (DAG)  
3 including a plurality of nodes; each operation being represented by a node; the nodes being  
4 arranged in the transaction instance DAG such that paths through the transaction instance  
5 DAG indicate the more than one possible order in which the plurality of operations may be  
6 performed; and wherein performing the transaction further includes traversing a path  
7 through the plurality of nodes of the transaction instance DAG.

1        25. (Original) The computer-implemented method of claim 24 for performing a  
2 transaction wherein the path through the graph is determined at runtime.

1        26. (Original) The computer-implemented method of claim 21 for performing a  
2 transaction further including receiving a transaction request message indicating a request to  
3 perform the transaction from a requesting application residing on a first computer included  
4 in a distributed network; and wherein the service application resides on a second computer  
5 included in the distributed network.

1        27. (Original) The computer-implemented method of claim 26 wherein the  
2 distributed network is the Internet.

1           28. (Original) An article of manufacture comprising a data storage medium having  
2 computer readable instruction data embodied therein; the computer readable instruction data  
3 indicating instructions executed by a processor in a processor-controlled machine for  
4 managing transaction processing message flow among a plurality of requesting application  
5 programs and service application programs resident on a plurality of processor-controlled  
6 machines in a distributed network; the computer readable instructions in the article of  
7 manufacture comprising:

8           a first portion of instructions which when executed causes the processor to produce a  
9 transaction instance data structure indicating a plurality of operations constituting a  
10 transaction; the transaction instance data structure indicating a linking of the plurality of  
11 operations to indicate an order of execution; the transaction instance data structure further  
12 indicating conditioning logic data conditioning execution of at least one operation such that  
13 the plurality of operations is capable of being performed in more than one possible order;  
14 and

15           a second portion of instructions which when executed causes the processor, for each  
16 of the plurality of operations, to produce an operation request message indicating input data  
17 for performing an operation, to send the operation request message to a service application  
18 to perform the operation using the input data, to receive an operation response message  
19 from the service application indicating output data from the operation, and to determine a  
20 next operation to perform using the conditioning logic data and the output data of the  
21 operation response message.

1           29. (Original) The article of claim 28 wherein the conditioning logic data  
2 indicates at least one of a mathematical expression, a function, and a variable data item; and

3 wherein the second portion of instructions further includes a third portion of instructions  
4 which, when executed, causes the processor, for each of the plurality of operations, to use  
5 the output data to evaluate the at least one of the mathematical expression, the function, and  
6 the variable data item in order to determine the next operation to perform.

1           30. (Original) The article of claim 28 wherein the transaction instance data  
2 structure is a directed acyclic graph (DAG) including a plurality of nodes; each operation  
3 being represented by a node; the nodes being arranged in the transaction instance DAG such  
4 that paths through the transaction instance DAG indicate the more than one possible order in  
5 which the plurality of operations may be performed; and wherein the article further includes a  
6 third portion of instructions which, when executed, causes the processor to traverse a path  
7 through the plurality of nodes of the transaction instance DAG.

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1           31-40. Canceled

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